



MOBIL SHC AWARE™ GEAR OIL SERIES

Mobil Marine , Estonia

U.S. EPA 2013 Vessel General Permit Compliant Gear Oil

Product Description

Mobil SHC Aware™ Gear Oil Series are a range of high performance, anti-wear gear oils for use in marine applications and meet the U.S. Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for “environmentally acceptable lubricants”. They provide excellent wear protection for gears and bearings and safeguard equipment from rust and corrosion. They also possess outstanding oxidation properties, which help to extend oil life, and offer a wide operating temperature range and excellent low temperature start-up. Mobil SHC Aware™ Gear Oil Series demonstrate excellent air release properties versus typical mineral gear oils, resulting in less air entrainment and protection from cavitation. Furthermore, their excellent seal compatibility helps to minimize leaks.

Features and Benefits

- Meets US EPA 2013 Vessel General Permit requirements for environmentally acceptable lubricants
- Outstanding load-carrying and anti-wear properties which protects system components against micropitting and scuffing and helps provide long equipment life
- Shear stable high viscosity index help sustain component protection over a wide temperature
- Excellent resistance to high temperatures degradation
- Very good demulsibility and resistance to rust and corrosion

Applications

- Marine controllable pitch propeller and thruster applications
- Suitable for enclosed gear drives including steel-on-steel spur, helical and bevel designs
- In systems where readily biodegradable and minimally toxic fluids may be required
- Marine and mobile equipment operating in environmentally sensitive areas
- Can be used in select Stern Tube applications

Specifications and Approvals

| This product has the following approvals: | MOBIL SHC AWARE GEAR OIL 68 | MOBIL SHC AWARE GEAR OIL 100 | MOBIL SHC AWARE GEAR OIL 150 |
|--|--------------------------------|---------------------------------|---------------------------------|
| Everllence Alpha Propeller Fixed Pitch Propeller System with Oil Lubricated Stern Tube, Continuous Arctic <5°C | | X | |
| Everllence Alpha Propeller Fixed Pitch Propeller System with Oil Lubricated Stern Tube. All Purpose | | | X |
| Everllence Alpha Propeller VB & VBS Common Oil System, All Purpose | | | X |
| Everllence Alpha Propeller VB & VBS Common Oil System, Continuous Arctic <5°C | | X | |
| Everllence Alpha Propeller VB & VBS Separate Oil System - Hub System, Continuous Arctic <5°C | X | | |
| Everllence Alpha Propeller VB & VBS Separate Oil System - Stern Tube System, All Purpose | | | X |

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|---|------------------------------------|-------------------------------------|-------------------------------------|
| Everlence Alpha Propeller VBS - ODF/ODS Servo Oil System incl. Hydraulic Power Unit | | X | |
| KAWASAKI Heavy Industries Side Thruster | | X | |
| Lagersmit Supreme FKM-EAL Lip Seals | | X | |
| Ortlinghaus-Werke GmbH ON 9.2.10 | | X | X |
| Wärtsilä Shaft Line Solutions Spain Stern Tube and Thruster Seals Series K - M - SEAQUAL & IWSS | | X | X |

| This product meets or exceeds the requirements of: | MOBIL SHC AWARE GEAR OIL 68 | MOBIL SHC AWARE GEAR OIL 100 | MOBIL SHC AWARE GEAR OIL 150 |
|---|------------------------------------|-------------------------------------|-------------------------------------|
| AFNOR EU Ecolabel | X | X | X |
| AGMA 9005-F16 | X | X | X |
| DIN 51517-3:2018-09 | X | X | X |
| ISO L-CKC (ISO 12925-1:2024) | X | X | X |
| ISO L-CKD (ISO 12925-1:2024) | X | X | X |
| US EPA VGP:2013 | X | X | X |

Properties and Specifications

| Property | MOBIL SHC AWARE GEAR OIL 68 | MOBIL SHC AWARE GEAR OIL 100 | MOBIL SHC AWARE GEAR OIL 150 |
|---|------------------------------------|-------------------------------------|-------------------------------------|
| Grade | ISO VG 68 | ISO VG 100 | ISO VG 150 |
| Air Release Time, 50 C, min, ASTM D3427 | 8, 8 | 9.7 | 17.7 |
| Biodegradability after 28 days, %, OECD 301B | 81 | 82 | 80 |
| Copper Strip Corrosion, 3 h, 100 C, Rating, DIN EN ISO 2160 | 1A | 1A | 1A |
| Density @ 15 C, kg/l, ASTM D4052 | 0.9822 | 0.9917 | 0.996 |
| FE8 D7.5/80-80 Roller Bearing Wear, mg, DIN 51819-3 | 4.3 | 7.4 | 2.8 |
| FZG Micropitting, GFT-Class, Rating, FVA 54 | High | High | High |
| FZG Micropitting, Load Stage GFT, Rating, FVA No. 54 | 10 | 10 | 10 |
| FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1 | 14 | 14 | >14 |

| Property | MOBIL SHC AWARE GEAR OIL 68 | MOBIL SHC AWARE GEAR OIL 100 | MOBIL SHC AWARE GEAR OIL 150 |
|--|-----------------------------|------------------------------|------------------------------|
| Flash Point, Cleveland Open Cup, °C, ASTM D92 | 290 | | 300 |
| Kinematic Viscosity 40 C, mm ² /s, ASTM D7042 | 68 | 100 | 150 |
| Kinematic Viscosity, 100°C, mm ² /s, ASTM D7042 | 10, 7 | 15, 7 | 21 |
| Neutralization Number, mgKOH/g, ISO 6618 | 2, 4 | 2.6 | 2.5 |
| Pour Point, °C, ASTM D97 | -39 | -36 | -33 |
| Rust Characteristics, Procedure B, DIN ISO 7120 | Pass | Pass | Pass |
| Viscosity Index, DIN ISO 2909 | 150 | 155 | 150 |

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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